DOCUMENT RESUME

ED 190 953 CG 014 600

AUTHOR Eagly, Alice H.; Wood, Wendy
TITLE Gender Stereotypes as a Product of Inferred Sex Differences in Status: The Case of the Influenceability Stereotype.
SPONS AGENCY National Science Foundation, Washington, D.C.
PUB DATE 80
GRANT NSF-BNS-77-11671; NSF-BNS-79-24471
NOTE 41p.; Paper presented at the Annual Meeting of the Midwestern Psychological Association (52nd, St. Louis, MO, May 1-3, 1980). Best copy available.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Congruence (Psychology); Employment Level; *Influences; *Interpersonal Relationship; *Perception; Personality Traits; Psychological Patterns; *Sex Differences; Sex Stereotypes; *Social Influences; Sociocultural Patterns; *Status

ABSTRACT

According to sex stereotypes, women are more easily influenced than men. This stereotype may derive from perceivers' inferences that women occupy lower status positions than men, and the lower an individual's status in relation to other persons, the more he or she yields to their influence. Each subject (N=408) read a scenario describing a workplace encounter in which a communicator attempted to influence an opposite-sex recipient. For scenarios omitting job titles of the communicator and recipient, subjects believed that a female recipient would be more likely to comply behaviorally with a male communicator's recommendation than a male recipient would with a female communicator's recommendation. For scenarios including job titles, subjects' beliefs about compliance were based on the communicator's and recipient's job status but not on their gender. In a second experiment, scenarios omitting job titles were composed with same-or opposite-sex communicators and recipients. The greater perceived compliance of female recipients with male communicators than male recipients with female communicators was replicated and proven to be a function of both the communicator's and the recipient's gender. These findings suggest that perceived status affects the content of gender stereotypes. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

ED190953

GENDER STEREOTYPES AS A PRODUCT OF INFERRED SEX DIFFERENCES IN STATUS: The Case of the Influenceability Stereotype

Alice H. Eagly and Wendy Wood
University of Massachusetts - Amherst

The research reported in this manuscript was supported by National Science Foundation Grants BNS77-11671 and BNS79-24471. A preliminary version of this paper was presented at the Eastern Psychological Association, Hartford, CT, April 1980. The authors would like to thank David Wagstaff for help with statistical analyses, Lisa Fishbaugh and Gail Winbury for assistance in administering materials to subjects, and Shelly Chaiken for comments on a draft of the article.

Requests for reprints should be sent to Alice H. Eagly, Department of Psychological Sciences, Purdue University, West Lafayette, Indiana 48907.

CG 014600

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Wendy Wood

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Gender Stereotypes as a Product of Inferred Sex Differences in Status: The Case of the Influenceability Stereotype

One of the most striking phenomena encountered in the study of psychological sex differences is that research generally fails to substantiate the sex differences that people perceive in their everyday lives. Recent reviews (e.g., Maccoby & Jacklin, 1974) agree that scientific evidence for sex differences is primarily limited to aggression and a few abilities. Perceivers, in contrast, focus on gender differences in a wide spectrum of traits relevant to social behavior--for example, leadership ability, dependency, and talkativeness (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972).

The resolution of this paradox that most psychologists offer is essentially that perceivers' beliefs about gender are wrong. Yet the conclusion that perceivers are profoundly wrong cannot be correct since everyday life offers them so many opportunities to test their beliefs about gender. In fact, research has suggested that beliefs about groups of people (or stereotypes) are more accurate to the extent that perceivers are in frequent contact with members of the stereotyped group (Triandis & Vassiliou, 1967). To be sure, the accuracy of gender stereotypes is compromised not only by biased information in the mass media (Tuchman, Daniels, & Benét, 1978), but also by cognitive biases affecting perceptions of any social group (Hamilton, 1979). Yet considerable information about gender is a product of perceivers' direct encounters with

men and women, and indeed, also stems from perceivers' own past histories as men or women. From this perspective, it is implausible that beliefs about gender fail to represent the main contours of females' and males' actual characteristics.

One reason for the discrepancies between gender stereotypes and research findings may be that laboratory research draws on a different data base than perceivers do in their daily lives. The data base differs because in the natural settings where perceivers learn about gender, men are more likely than women to have high status roles. In contrast, in most research settings, especially laboratories, females and males are assigned the exact same role--that of subject. As a consequence of this difference between laboratories and natural settings, those sex differences that are observed in daily life and are actually a product of status differences would probably not be confirmed by laboratory experiments.

To test these ideas about status and gender, this research examines the stereotype that women are more easily influenced than men. Beliefs about social influence were chosen because accepting influence from other people is commonly affected by one's status in a group. Social norms generally prescribe that people in lower status positions in a group accept direction and advice from those in higher status positions, at least on matters related to the group's functioning. Another reason that influenceability was chosen is that there is a discrepancy between the relatively weak research evidence for a sex difference in influenceability (Eagly, 1978; Eagly & Carli, Note 1) and the clear-cut gender stereotype that women are easily influenced (Broverman et al., 1972). This discrepancy suggests that an inferred sex difference in status may underlie the gender stereotype about influenceability.

To explore perceived sex differences in how easily people are influenced, the present experiment obtained judgments of members of dyads. One member of each dyad was described as attempting to influence the other. Even though most stereotype studies have examined perceivers' judgments of entire ethnic or gender groups or of "typical" group members, dyads are appropriate for the present research because in the natural environment social influence typically occurs in small group contexts involving two or more persons. Further, dyads allow perceivers to judge the relative status of a sender and a receiver of influence, and this judgment may be critical for the maintenance of the gender stereotype.

In the first experiment, subjects were presented with opposite-sex dyads, each consisting of a communicator and a recipient. Some of these subjects were given information about gender of dyad members, without any more valid information about status. It was expected that (a) the dyad in which a male communicator addresses a female recipient would be perceived as a higher status communicator trying to persuade a lower status recipient, and (b) the dyad in which a female communicator addresses a male recipient would be perceived as a lower status communicator trying to persuade a higher status recipient. Because of these inferences about relative status, perceivers are expected to conclude that influence is more effective when a male communicator addresses a female recipient than it is when a female communicator addresses a male recipient.

Other subjects were given highly valid information about status, conveyed by the job titles of the communicator and recipient, in addition to the information about gender. With the addition of job titles, perceivers should not infer status

from gender nor should gender cues affect their judgments about the success of influence attempts. Knowing job titles, perceivers should consider successful influence a more likely outcome with high status communicators and with low status recipients--regardless of the gender of the communicator and recipient.

The relationships between gender, perceived status, and perceived influenceability assumed by our model will be examined by a structural analysis of these variables (Kenny, 1979) as well as by analysis of variance. Structural or path analysis is, in general, appropriate for use in experimental data to estimate the causal relationships hypothesized among dependent measures (Billings & Wroten, 1978). In the present study, structural analysis will determine whether the data are consistent with the assumptions that (a) subjects given only gender information about a communicator and recipient use this information to infer relative status and then predict amount of influence on the basis of this status inference, and (b) subjects given the communicator's and recipients' job titles infer influence on the basis of these direct status cues rather than gender.

It is important to note that perceivers' inferences about status should not be assumed have similar effects on all aspects of individuals' reactions to influence attempts. In particular, the effect of status differences on perceived influenceability may depend on whether a public or private response to influence is studied. In the present experiment, subjects' perceptions of two public responses are examined--behavioral compliance with

the communicator's recommendation and oral agreement in the communicator's presence. It seems likely that status differences in a communicator's favor typically legitimize demands for subordinates to show public yielding to influence. The experiment also examines subjects' perceptions of recipients' private agreement with the communicator. Because private change of one's opinions is less accessible to communicators, it should be less strongly affected by the communicator's or recipient's status. For these reasons, our hypotheses concerning gender and status should hold for behavioral compliance and oral agreement, but not for private agreement.

EXPERIMENT 1

Method

Subjects and Procedure

A total of 223 males and 185 females participated. A female experimenter randomly selected them by choosing on repeated occasions every fourth person seated in a University of Massachusetts coffee shop. Of those persons approached, approximately 80% participated. Their mean age was 25.2 years.

Each subject read a scenario in which one employee (the communicator) attempted to influence an opposite-sex employee (the recipient) on an issue of company policy. The communicator was described as feeling strongly about the issue and explaining his or her reasons to a recipient who had not favored this type of policy. The scenarios were constructed according to a 2 (male communicator addressing female recipient vs. female communicator addressing male recipient) X 2 (bank vs. supermarket setting) design. In comparison scenarios that incorporated status information by

mentioning the communicator's and recipient's job titles, these gender arrangement and setting variables were crossed with high vs. low communicator status and high vs. low recipient status to yield a four-factor design.

Each scenario concluded by having the communicator ask the recipient whether he or she "goes along with" the policy recommended by the communicator. Subjects predicted the recipient's reactions by responding to the measures described below.

Manipulation of Independent Variables

Gender arrangement. In half of the scenarios, a male communicator addressed a female recipient, and in the other half, a female communicator addressed a male recipient. Gender was identified by sex-typed names.

Setting. To provide an internal replication of the design, half of the scenarios were set in a bank and half in a supermarket. In the bank, the policy advocated by the communicator was that "In order to improve the bank's image, all employees ought to dress in a more formal, conservative manner." In the supermarket, the policy was that "All employees ought to put in at least 8 hours per week of overtime during December" because of a seasonal increase in business.

Communicator status; recipient status. In half of the comparison scenarios, the communicator held a high status job (bank vice president or supermarket manager), and in half a low status job (bank teller or supermarket cashier). Also, in half of the comparison scenarios, the recipient held one of the high status jobs, and in half one of the low status jobs.

Measuring Instruments

Predicted responses to influence. On 15-point scales ranging from "strongly agrees" to "strongly disagrees," subjects predicted (a) the opinion the recipient would state to the communicator (oral agreement) and (b) the recipient's "true, private opinion" on the issue after hearing the communicator's views (private agreement). Subjects indicated on a 15-point scale ranging from "extremely likely" to "extremely unlikely" the probability that the recipient would comply with the policy the communicator proposed (behavioral compliance).

Inferred status. Subjects then estimated (in dollars) the communicator's or recipient's salary, and, for the scenarios without status information, gave their "best guess" concerning the communicator's or recipient's job title.[1] Coders blind to communicator and recipient gender divided the job titles into (a) a high status category consisting of jobs that either include an administrative or managerial component or require high-level technical skills and (b) a low status category of other jobs.

Reasons for recipient's oral agreement. For the supermarket scenarios, subjects then judged the impact of several factors on the position they predicted that the recipient would state to the communicator.[2] On 15-point scales ranging from "very important" to "very unimportant," they judged the following reasons: (a) avoiding hurting the communicator's feelings, (b) avoiding negative consequences, such as losing one's

job, (c) giving an honest opinion, and (d) any additional reason the subject cared to suggest.

Results

Gender Arrangement X Setting analyses of variance of the scenarios omitting status information and Gender Arrangement X Setting X Communicator Status X Recipient Status analyses of the comparison scenarios were calculated, along with appropriate contrasts. All analyses employed the same error term, which was based on all of the scenarios. Because analyses including subject sex as an additional variable yielded no systematic differences between males and females, this variable was dropped from the analyses reported in this paper.

Inferred Status

In the status omitted conditions, subjects' job title guesses were categorized as low status positions for 16 male and 31 female communicators and recipients and as high status positions for 24 males and 9 females. A log-linear analysis of these cell frequencies (cf. Bishop, Fienberg, & Holland, 1975; Davis, 1974) revealed a significant likelihood ratio chi-square (G = 11.95, $p < .001$) for the interaction between sex of the stimulus person and job title status. In addition, communicators were assigned higher status positions than recipients (G = 4.58, $p < .05$).

Salary estimates for the status omitted conditions (see Table 1) were analyzed according to the Gender Arrangement X Setting design, with the inclusion of influence role (communicator vs.

Insert Table 1 about here

---

recipient) as a third factor. A contrast between the conditions in which the salary of a male communicator or recipient was estimated and those in which a female's salary was estimated revealed that males were thought to earn considerably more than females, F (1,367) = 15.97, $p < .001$. In addition, communicators were thought to earn more than recipients, F (1,367) = 7.13, $p < .01$. Consistent with a significant Gender Arrangement X Influence Role interaction, F (1,367) = 16.10, $p < .001$, subjects who judged a male communicator addressing a female recipient estimated that the communicator earned considerably more than the recipient ($p < .001$), whereas subjects who judged a female communicator addressing a male recipient estimated that the communicator earned nonsignificantly less than the recipient. Employees of banks were estimated to have higher salaries than employees of supermarkets ($p < .05$).

For the comparison scenarios, analyses of salaries demonstrated the success of the status manipulations: Persons with high status job titles were perceived as earning considerably more than persons with low status job titles, both as communicators, F (1,184) = 135.95, $p < .001$, and as recipients, F (1,183) = 168.88, $p < .001$.[3] Employees of banks were thought to earn more than employees of supermarkets ($ps < .001$), but, consistent with the significant Setting X Status interactions ($ps < .001$), this perceived salary difference between banks and supermarkets was significant only for high status jobs ($ps < .001$). Finally, men were thought to earn more than women, both as communicators, F (1,184) = 4.75, $p < .05$, and as recipients, F (1,183) = 10.12, $p < .001$.

Predicted Behavioral Compliance

Subjects' mean ratings of the likelihood that the recipient would comply with the communicator's recommendation appear in Table 2. For the scenarios that omitted status information, subjects

---

Insert Table 2 about here

---

predicted that a female recipient would be more likely to comply with a male communicator's recommendation than a male recipient would with a female communicator's recommendation, F (1,387) = 4.88, $p < .05$.

In the comparison conditions, which included status information, gender arrangement had no significant effects. Subjects believed that behavioral compliance was more likely when the communicator had high rather than low status, F (1,387) = 53.14, $p < .001$, and when the recipient had low rather than high status, F (1,387) = 35.01, $p < .001$. A significant Communicator Status X Recipient Status interaction, F (1,387) = 3.99, $p < .05$, reflected that the difference between the low and high status recipients was stronger when the communicator had high status ($p < .001$) rather than low status ($p < .05$). In addition, compliance was thought more likely in the supermarket than the bank ($p < .001$), but, consistent with a significant Setting X Communicator Status interaction ($p < .05$), this setting difference was significant with a low status communicator ($p < .001$) and nonsignificant with a high status communicator.

Structural analyses. A structural analysis was conducted to examine the relationships between behavioral compliance and its

hypothesized determinants, inferred status (estimated salary) and the gender of the communicator and recipient.[4] The structural analysis employed partial correlations, calculated to remove the effects of the manipulated variables. The analysis estimated the parameters of the causal model separately for the status omitted and the comparison conditions by first constructing multiple regression equations in which behavioral compliance was predicted from salary estimates and the gender of the communicator or recipient. Any predictor that failed to show at least a marginally significant ($p < .10$) relationship to compliance was deleted from the equation. Each regression was recomputed with only its remaining predictor, and the resulting beta weight was interpreted as a path coefficient.

Insert Figure 1 about here

In the status omitted scenarios (see Figure 1) the significant prediction of behavioral compliance from estimated salary indicates that higher communicator status was associated with greater compliance to communicator demands and higher recipient status was associated with less compliance on the part of recipients. When estimated salary was then regressed on gender of the communicator or recipient, a significant relationship was obtained, with males perceived to have higher status than females.[5]

In the comparison conditions, estimated salary was also a significant predictor of behavioral compliance (B= .27, $p < .05$). Gender was not a significant predictor of estimated salary nor of compliance, and it was dropped from the equation. When the direct manipulation of status (conveyed by recipients' and communicators' job titles) was included along with estimated salary as a predictor of compliance, only manipulated status was a significant predictor (B= .44, $p < .001$). These findings indicate that when both status and gender cues were available, subjects relied on status to the exclusion of gender in predicting behavioral compliance.

Predicted Agreement

Analyses on subjects' predictions of recipients' oral agreement in the communicator's presence yielded no significant effects. This failure to obtain the predicted effects should be considered in conjunction with subjects' perceptions of recipients' reasons for the stated opinions. In the comparison conditions, avoiding negative consequences such as losing one's job was perceived as a more important reason for low status (M = 10.62) than high status recipients (M = 7.95, $p < .005$). Avoiding hurting the communicator's feelings was perceived as a more important reason when the communicator had low status (M = 9.12) rather than high status (M = 7.75, $p < .005$). For the scenarios omitting status information, nonsignificant trends suggested that gender arrangement affected these perceived reasons.

Thus, subjects thought that avoiding negative consequences was a somewhat more important reason for a female recipient confronting a male communicator (M = 10.57) than for a male recipient confronting a female communicator (M = 8.52, $p < .10$). Subjects also thought that avoiding hurting the communicator was a nonsignificantly more important reason for a male recipient encountering a female communicator (M = 8.00) than for a female recipient encountering a male communicator (M = 6.52, $p < .16$).

Analyses on subjects' predictions of recipients' private agreement yielded no effects for the scenarios that omitted status information. However, for the comparison scenarios, private agreement was perceived to be greater for high status (M = 5.10) than low status recipients (M = 4.35, $p < .05$) and greater with low status (M = 5.08) than high status communicators (M = 4.36, $p < .05$). In addition, male recipients were thought to show more private agreement with female communicators (M = 5.03) than female recipients with male communicators (M = 4.38, $p < .05$).

Discussion

The findings are generally consistent with the assumption that perceivers believe in gender differences in how easily people are influenced because they believe that men and women differ in status. Subjects' inference about status on the basis of information about gender was demonstrated by their estimates of male salaries as $4960 higher than female salaries when communicators and recipients were identified only by gender. Yet estimated salary was not a pure measure of inferred status. In fact, the $2156

perceived difference between male and female salaries in the conditions that provided job titles suggests that salary estimates may also reflect perceived discrimination. Nevertheless, the interpretation that subjects inferred status differences from gender cues remains valid in view of (a) the considerably larger salary sex difference obtained for communicators and recipients identified only by gender than for those identified also by job title, t (1,367) = 4.04, $p < .001$, and (b) the higher male than female status reflected in subjects' guesses about the job titles of communicators and recipients identified only by gender.

In the scenarios that omitted job titles, the dyads composed of a male communicator and female recipient were perceived as a higher status person trying to influence a lower status person. It was expected that dyads composed of a female communicator and a male recipient would be perceived as a lower status person trying to influence a higher status person. However, because there was a substantial gain in estimated salary ($3360) from being a communicator rather than a recipient, there was no significant difference in the salaries of female communicators and male recipients. It is clear, then, that the communicator had a considerable status advantage over the recipient in the male communicator-female recipient dyads and that this advantage was absent in female communicator-male recipient dyads. Therefore, our manipulations created an appropriate site for testing the hypothesis that perceivers' inferences about relative status mediate their perceptions of the success of social influence.

According to the behavioral compliance findings for the scenarios omitting job titles, the communicator was perceived as a significantly more effective agent of influence when the communicator was male and the recipient female than when the communicator was female and the recipient male. The mediation of this perceived compliance difference by inferred status differences was suggested by the findings of the structural analysis. These findings were consistent with the assumption that subjects inferred status on the basis of gender and then predicted behavioral compliance on the basis of inferred status. In contrast, for subjects who were given job titles for the communicator and recipient as well as their gender, both the analysis of variance and the structural analysis suggested that gender was ignored as a basis for predicting behavioral compliance. Instead, subjects employed the job title information to predict compliance.

Subjects' perceptions of recipients' oral agreement in the communicator's presence did not parallel their perceptions of behavioral compliance. We had reasoned that subordinates would be expected to agree with superiors on work-related issues because of fear of negative consequences such as losing one's job. Yet findings on recipients' reasons for stating their opinions demonstrated that this expectation was accompanied by an expectation that superiors agree with subordinates in order to avoid hurting subordinates' feelings. Viewed in terms of the opposite impact these two expectations would have on the effects of status on oral

agreement, it is not surprising that oral agreement was not affected by status or gender.

Also worthy of comment are the unexpected effects obtained on subjects' predictions of the recipient's private agreement with the communicator: Private agreement was believed to be greater for high than low status recipients and with low than high status communicators. These effects, which reverse the effects obtained on behavioral compliance, suggest that subjects may have reasoned as naive reactance theorists (Brehm, 1966) by believing that external pressure on the recipient to comply behaviorally (stemming from the recipient's own low status or the communicator's high status) caused the recipient to resist changing his or her private opinion. Yet the tendency for male recipients to be perceived as privately agreeing more with female communicators than female recipients with male communicators (when job titles were provided) was not mirrored by a reversed effect on behavioral compliance.

The present data, then, reveal the perceived relationships between gender, status, and social influence and are consistent with the interpretation that subjects' inferences about status formed the basis of their predictions about behavioral compliance. Yet an ambiguity remains in these findings: The design, which confounded communicator gender and recipient gender, is not informative concerning whether gender of the communicator or gender of the recipient or both are critical in determining the amount the recipient is perceived to be influenced

by the communicator. It is reasonable to assume that the gender of both the communicator and the recipient are important. To clarify this point and to replicate the major finding of the study, an experiment including same-sex and opposite-sex dyads was conducted with scenarios omitting job titles.

EXPERIMENT 2

Method

Subjects and Procedure

A total of 117 males and 114 females participated. The procedure was identical to that of Experiment 1, except that same-sex as well as opposite-sex scenarios were presented. Consequently the gender arrangement variable had four levels, attained by crossing communicator gender and recipient gender in a 2 (male vs. female communicator) X 2 (male vs. female recipient) design. Gender arrangement was crossed with the setting (bank vs. supermarket) variable. The opposite-sex scenarios were an exact replication of Experiment 1's scenarios omitting status information.

Results

The data were analyzed according to Communicator Sex X Recipient Sex X Setting analyses of variance and appropriate contrasts. Again, analyses including subject sex yielded no systematic differences between males and females, and this variable was not included in the following analyses.

Inferred Status

Subjects' job title guesses were categorized as low status positions for 58 male and 85 female communicators and recipients,

and as high status positions for 58 males and 22 females. A log-linear analysis was conducted on these cell frequencies and revealed a significant likelihood ratio chi-square (G = 21.56, $p < .001$) for the interaction between sex of the stimulus person and job title status. In addition, communicators were assigned higher status positions than recipients (G = 18.33, $p < .001$).

Analysis of subjects' salary estimates (see Table 4)

Insert Table 4 about here

---

showed that males were thought to earn more than females, both as communicators, F (1, 97) = 19.66, $p < .001$, and as recipients, F (1,98) = 11.90, $p < .001$. Communicators were thought to earn more than recipients F (1,214) = 15.63, $p < .001$. Also, communicators who worked in banks were thought to earn more than communicators employed in supermarkets ($p < .001$).

Predicted Behavioral Compliance

Subjects' mean ratings of the likelihood that the recipient would comply with the communicator's recommendation appear in Table 5. Consistent with the first experiment, female recipients

---

Insert Table 5 about here

---

were thought more likely to comply with male communicators than male recipients with female communicators, F (1,220) = 4.90, $p < .05$. Subjects thought that female recipients were somewhat more likely to comply than male recipients, F (1,220) = 3.46, $p < .07$, and that male communicators were somewhat more likely

to receive compliance than female communicators, F (1,220) = 3.06, $p < .09$.

Structural analysis. As in Experiment 1, a structural analysis was conducted to determine the predictors of behavioral compliance. The analysis employed partial correlations, removing the effects of the manipulated variables. The model developed in Experiment 1 proved to be a good description of the data in the bank setting (see Figure 2), but the relationships were weaker in the

---

Insert Figure 2 about here

---

supermarket. In the bank, males were perceived to have higher status than females, and higher communicator status then led subjects to infer greater compliance to communicator demands and higher recipient status led them to infer less compliance.[6]

Predicted Agreement

Subjects' predictions of recipients' oral agreement in the communicator's presence indicated that male recipients were thought more likely to agree (M = 7.96) than females (M = 6.98, $p < .01$). Subjects' ratings of the reasons underlying recipients' stated agreement supported the results of Experiment 1. Avoiding negative consequences such as losing one's job was perceived as a more important reason for recipients addressing male (M = 10.48) compared to female communicators (M = 9.05, $p < .01$). In addition, a comparison of the scenarios involving opposite-sex employees again revealed that avoiding negative consequences was more important for female recipients encountering male communicators (M = 10.76)

than for male recipients and female communicators (M = 8.51, $p < .01$). Although no significant effects were obtained on ratings of the importance of avoiding hurting the communicator, comparisons again suggested that this reason was somewhat more important for male communicators addressing female recipients (M = 8.88) than for female communicators addressing male recipients (M = 7.94, $p < .15$).[7]

Analysis of subjects' predictions of recipients' private agreement indicated that recipients were considered somewhat less likely to agree with a male communicator (M = 4.62) than a female (M = 5.02, $p < .06$).

Discussion

These findings are consistent with the assumption that perceivers believe in gender differences in influenceability because they believe that men and women differ in status. Once again, subjects inferred that men had higher salaries than women and held higher status positions. The critical finding of Experiment 1 was replicated by Experiment 2: A male communicator encountering a female recipient was perceived to induce significantly more behavioral compliance than a female communicator encountering a male recipient. In addition, the design used in Experiment 2, which independently manipulated the gender of the communicator and of the recipient, revealed that the gender of both persons was responsible for these perceived differences in behavioral compliance.

The structural analysis provided additional evidence that inferred status differences mediated the effects of gender on

behavioral compliance. The fact that the relationships in the structural model reached significance for the bank and not the supermarket suggests that status differences may have been less ambiguous in the bank setting. However, this explanation is less adequate for Experiment 1, in which the structural models were quite similar for the two settings.

As in Experiment 1, perceived oral agreement in the communicator's presence did not follow the same pattern as behavioral compliance, and once again there was some indication that oral agreement is explained either in terms of seeking to avoid hurting a subordinate's feelings or in terms of seeking to avoid negative consequences such as losing one's job. Finally, the tendency for subjects to perceive more private agreement with a female than a male communicator again suggests that perceivers reason as naive reactance theorists.

Implications for Understanding Gender Stereotypes

Two aspects of the findings deserve exploration in relation to the gender stereotype about influenceability: (a) the stereotypical sex difference was obtained on behavioral compliance but not other responses to influence and (b) this perceived sex difference in behavioral compliance appeared to be mediated by status inferences. Does it follow from these findings that the influenceability stereotype is based solely on perceived sex differences in behavioral compliance, as mediated by inferred status differences? This conclusion does not follow since in the sender-

receiver scenarios, the higher status person possessed a form of authority intrinsically linked to behavioral compliance. This high status person had formal authority and access to resources or, in Kelman's (1961) terms, had means control vis-à-vis the lower status person. Kelman has suggested that power of this type results in compliance rather than internalized opinion change, and our respondents evidently agreed. Yet gender may be perceived as linked to bases of power in addition to means control, and these other bases may have quite different implications for social influence. For example, if perceivers infer gender differences in credibility or competence (Deaux & Emswiller, 1974; Miller & McReynolds, 1973) between a communicator and recipient, gender may be perceived to affect private agreement (provided that perceivers believe that communicator credibility enhances internalized opinion change). Because the gender stereotype about social influence, then, is probably based on perceived sex differences in various aspects of social power (Johnson, 1976), the present experiment provides only a partial, yet still informative view of the inferences that account for it.

The idea that gender stereotypes derive from differences between the perceived distribution of males and of females into social roles varying in status may provide a general explanation of the content of such stereotypes. This explanation, emphasizing the inferences perceivers make from gender cues, is in harmony with other efforts to understand stereotyping as ordinary cognitive processing (Ashmore & Del Boca, 1979; Hamilton, 1979). However, drawing overall conclusions about gender stereotypes based on the

present findings is risky because the experiment examined only perceived influence, which may be especially closely linked to perceived status.

The general idea that stereotpyes of social groups are a product of the perceived distribution of members of groups into roles does have precedent in the work of other investigators. In particular, the analysis is reminiscent of interpretations of racial stereotypes (e.g., Feldman, 1972; Triandis, 1977) suggesting that perceivers' stereotypes about blacks are based mainly on lower class blacks, who greatly outnumber middle class blacks in our society. In addition, Kiesler (1975) argued that the tendency of perceivers to evaluate an individual woman's achievements less favorably than an individual man's, even when their products are objectively equal, may be due to the fact that men outnumber women as successful achievers in many occupational realms. These related analyses suggest considerable generality for the type of information-processing documented by the present study. Additional research will determine with more precision the role of inferred differences in status and other social attributes in determining the content of gender stereotypes.

Reference Note

1. Eagly A. H., & Carli, L. Sex of researchers and sex-typed communications as determinants of sex differences in influence-ability: A meta-analysis of social influence studies. Unpublished manuscript, University of Massachusetts, Amherst, 1980.

References

Ashmore, R. D., & Del Boca, F. K. Sex stereotypes and implicit personality theory: Toward a cognitive-social psychological conceptualization. Sex Roles, 1979, 5, 219-248.

Billings, R. S., & Wroten, S. P. Use of path analysis in industrial/organizational psychology: Criticisms and suggestions. Journal of Applied Psychology, 1978, 63, 677-688.

Bishop, Y. M. M., Fienberg, S. E., & Holland, P. W. Discrete multivariate analysis. Cambridge, Mass.: MIT Press, 1975.

Brehm, J. W. A theory of psychological reactance. New York: Academic Press, 1966.

Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. Sex-role stereotypes: A current appraisal. Journal of Social Issues, 1972, 28, 59-78.

Davis, J. A. Hierarchical models for significance tests in multivariate contingency tables: An exegesis of Goodman's recent papers. In H. L. Costner (Ed.), Sociological methodology, 1973-74. San Francisco: Jossey Bass, 1974.

Deaux, K., & Emswiller, T. Explanations of successful performance on sex-linked tasks: What is skill for the male is luck for the female. Journal of Personality and Social Psychology, 1974, 29, 80-85.

Eagly, A. H. Sex differences in influenceability. Psychological Bulletin, 1978, 85, 86-116.

Feldman, J. M. Stimulus characteristics and subject prejudice as determinants of stereotype attribution. Journal of Personality and Social Psychology, 1972, 21, 333-340.

Hamilton, D. L. A cognitive-attributional analysis of stereotyping. In L. Berkowitz (Ed.), Advances in experimental social psychology, (Vol. 12). New York: Academic Press, 1979.

Johnson, P. Women and power: Toward a theory of effectiveness. Journal of Social Issues, 1976, 32, 99-110.

Kelman, H. C. Processes of opinion change. Public Opinion Quarterly, 1961, 25, 57-78.

Kenny, D. A. Correlation and causality. New York: Wiley, 1979.

Kiesler, S. B. Actuarial prejudice toward women and its implications. Journal of Applied Social Psychology, 1975, 5, 201-216.

Maccoby, E. E., & Jacklin, C. N. The psychology of sex differences. Stanford, California: Stanford University Press, 1974.

Miller, G. R., & McReynolds, W. Male chauvinism and source competence: A research note. Speech Monographs, 1973, 40, 154-155.

Triandis, H. C. Interpersonal behavior. Monterey, Calif.: Brooks/Cole, 1977.

Triandis, H. C., & Vassiliou, V. Frequency of contact and stereotyping. Journal of Personality and Social Psychology, 1967, 7, 316-328.

Tuchman, G., Daniels, A. K., & Benét, J. Hearth and home: Images of women in the mass media. New York: Oxford University Press, 1978.

Footnotes

1. Subjects estimated either the communicator's or the recipient's salary (and, in the status omitted conditions, either the communicator's or recipient's job title) because pretesting had suggested that asking subjects to judge both the communicator and recipient alerted them to the study's focus on perceived sex differences.

2. Soon after data collection for the bank setting had been initiated, it became apparent that findings on recipients' oral agreement departed from our hypothesis. In an attempt to clarify these findings, questions were added to the supermarket scenarios probing subjects' perceptions of the reasons for recipients' stated opinions.

3. For ease of communication, these analyses (and others, where appropriate) are reported separately for communicators and recipients.

4. For this analysis, gender was coded so that males were assigned a higher number than females. Because the relationship between behavioral compliance and estimated salary was assumed to be positive for communicators and negative for recipients, the coding of the behavioral compliance variable was reversed for those subjects who estimated a recipient's salary.

5. Partial correlations between likelihood of behavioral compliance and hypothesized mediators in scenarios omitting status information are as follows: behavioral compliance and status (estimated salary), r = .293; communicator or recipient gender

and status (estimated salary), r = .404; communicator or recipient gender and behavioral compliance, r = .226.

6. Partial correlations between likelihood of behavioral compliance and hypothesized mediators in bank setting are as follows: behavioral compliance and status (estimated salary), r = .207; communicator or recipient gender and status (estimated salary), r = .311; communicator or recipient gender and behavioral compliance, r = .127.

7. Analysis of the reasons for recipients' stated opinions yielded several additional effects. On the perceived importance of avoiding negative consequences, a Recipient Sex X Setting and a Communicator Sex X Setting interaction were obtained ($ps < .05$). In addition, on the perceived importance of recipients giving their honest opinions, a Communicator Sex X Setting interaction was obtained ($p < .05$).

Table 1

Mean Estimates of Communicator's and Recipient's Annual Salaries (in Dollars): Experiment I

Gender arrangement	Influence role	Setting	Scenarios omitting status information	Comparison scenarios (including status information)			
				Low status communicator		High status communicator	
				Low status recipient	High status recipient	Low status recipient	High status recipient
Male communicator addressing female recipient	Communicator (male) salary	Bank	19,500	9,062	10,002	30,100	29,900
		Supermarket	14,950	9,124	7,830	14,130	15,030
	Recipient (female) salary	Bank	10,250	9,300	22,600	8,295	22,300
		Supermarket	7,560	7,400	11,950	9,510	11,750
Female communicator addressing male recipient	Communicator (female) salary	Bank	13,800	9,015	8,230	20,700	27,227
		Supermarket	9,050	8,079	7,666	14,670	12,777
	Recipient (male) salary	Bank	12,600	10,161	25,200	9,888	26,700
		Supermarket	13,450	8,764	14,300	9,820	15,950

Table 2

Mean Likelihood of Recipient's Behavioral Compliance:

Experiment I

Gender arrangement	Setting	Scenarios omitting status information	Comparison scenarios (including status information)			
			Low status communicator		High status communicator	
			Low status recipient	High status recipient	Low status recipient	High status recipient
Male communicator addressing female recipient	Bank	9.55	6.50	5.63	10.20	6.35
	Super-market	8.52	8.67	7.35	11.00	9.10
Female communicator addressing male recipient	Bank	7.95	5.79	5.15	11.53	7.85
	Super-market	6.95	8.67	6.16	10.67	7.75

Note. Higher numbers indicate greater compliance.

Table 3

Mean Estimates of Communicator's and Recipient's Annual Salaries (in Dollars):

Experiment II

Gender arrangement	Influence role	Setting	
		Bank	Supermarket
Male communicator addressing male recipient	Communicator (male) salary	21,308	13,964
	Recipient (male) salary	13,767	12,821
Male communicator addressing female recipient	Communicator (male) salary	21,857	13,375
	Recipient (female) salary	11,025	10,885
Female communicator addressing male recipient	Communicator (female) salary	15,257	11,077
	Recipient (male) salary	14,280	15,155
Female communicator addressing female recipient	Communicator (female) salary	16,750	10,155
	Recipient (female) salary	11,638	9,245

Table 4

Mean Likelihood of Recipient's Behavioral Compliance: Experiment II

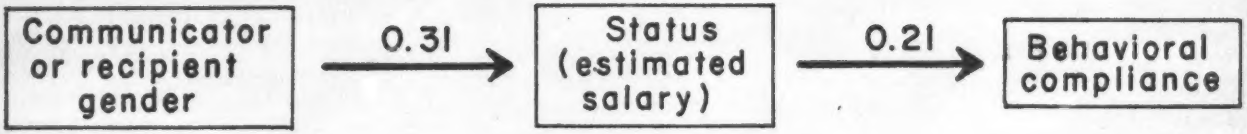
Gender arrangement	Setting	
	Bank	Supermarket
Male communicator addressing male recipient	9.19	8.93
Male communicator addressing female recipient	9.67	9.68
Female communicator addressing male recipient	7.59	8.95
Female communicator addressing female recipient	9.04	9.23

Note. Higher numbers indicate greater compliance.

Figure 1. Results of structural analysis for status omitted conditions in Experiment 1. Path coefficients appended to the arrows are all significant beyond the .05 level.

Communicator or recipient gender
0.40
Status (estimated salary)
0.29
Behavioral compliance

Figure 2. Results of structural analysis for the bank setting in Experiment II. Path coefficients appended to the arrows are significant beyond the .05 level.


Communicator or recipient gender
0.31
Status (estimated salary)
0.21
Behavioral compliance